

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bulucea, Constantin  
Assignee: National Semiconductor Corporation  
Title: Gate-Enhanced Junction Varactor  
Serial No.: 09/903,059 Filing Date: July 10, 2001  
Examiner: D. Farhani Group Art Unit: 2814  
Docket No.: NS-4971 US

San Jose, California  
June 13, 2002

COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

AMENDMENT TO TEXT

Sir:

Responsive to the Office Action mailed 14 March 2002, please amend the above patent application as follows:

IN THE SPECIFICATION

Amend paragraphs 5, 22, 27, 72, 96, 97, 107, 112, 114, 116, 150, 168, 175, 180, 203 - 206, 216, 219, 222, 230, 234, 242, and 257 to read:

--[0005] Fig. 2a depicts a conventional single-ended Colpitts VCO formed with n-channel enhancement-mode insulated-gate FET QC, fixed-value inductor LC, current source IC, fixed-value capacitor CC, and varactor CE. A differential version of the single-ended VCO of Fig. 2a is depicted in Fig. 2b. The VCO in Fig. 2b consists of identical common-gate n-channel insulated-gate FETs QC and QD, identical fixed-value inductors LC and LD, identical current sources IC and ID, identical fixed-value capacitors CC and CD, and varactor CF. Letting  $L_O$  here represent the inductance of each of inductors LC and LD, the oscillator in each of Figs. 2a and 2b provides an oscillator signal at variable frequency  $f_O$  determined from Eq. 1 where capacitance  $C_O$  is now the series combination of (a) the fixed capacitance of

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